Final Draft
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Bethlehem Steel Corporation's Burns Harbor Division was constructed during the late 1960's. At that time, the fire marshall required that all transformers within or near buildings be PCB transformers. In 1979, when the Burns Harbor Division completed the inventory required by the PCB regulations, the following items were accounted for.

- 208 operating and stored PCB transformers containing about 100,000 gallons of PCB-based oil
- 234 operating and stored PCB-contaminated transformers containing about 250,000 gallons of dielectric fluid
- 389 large operating and stored PCB capacitors
- 8 drums containing about 440 gallons of PCB-based oil

Background:

Any release of one pound or more of PCBs must be reported to the National Response Center. The area of contamination must be shutdown until it is decontaminated to levels specified in the PCB regulations or, if water discharges are affected, as dictated by the EPA. There is a risk that PCB contamination of production facilities can occur and result in production losses or shutdown of all or portions of the affected facility until PCB clean-up is completed. There is also the potential risk to the environment and human health in the event of a major spill.

Evaluation of the Risk:

The following factors were considered prior to deciding that a voluntary PCB removal program at the Burns Harbor Division was a prudent and cost-effective exercise.

A. The Burns Harbor Division of Bethlehem Steel experienced the following incidents of PCB release:

1. Leaks of PCB fluid occurred in a production building due to failure of the gaskets around the electrical cables at the point of entry into the transformer tank. This resulted in about $650,000 of clean-up cost plus a production delay.
2. The cooling fins on a PCB transformer were damaged and leaked PCB fluids onto the floor of a production building when a forklift accidentally ran into the transformer. This resulted in about $350,000 of clean-up cost.
3. Two outdoor PCB-contaminated disconnect switches exploded when water had seeped through the inspection plate gaskets. This resulted in about $120,000 of clean-up cost.

B. Because of the large number of PCB transformers within vital production buildings, Bethlehem considered the potential for contamination in the event of a building or equipment fire that engulfs a transformer or a transformer failure that causes the fluid to burn. This risk was evaluated using information from the February 1981 fire at the State Office Building in Binghamton, New York.

C. Several PCB transformers were located in areas where, should a major leak develop, PCBs could have entered water distribution systems that are vital to Plant production. Under EPA’s PCB regulations, if PCB's enter a water system, EPA would require that the water distribution system be shut down and clean-up be implemented under their guidance. This would cause production delays and possible loss of entire production facilities.

The Management of the Risk:

Upon evaluation of the above risk factors, a program was developed to replace, in an organized fashion, all of the PCB transformers at the Burns Harbor Division. The PCB transformers were prioritized for removal according to their potential for causing loss of production, contamination of a water system, contamination of the ground and the possibility of the occurrence of physical damage.

Conclusion:

Based on the potential clean-up costs that could be incurred in the event of a major PCB release as well as the potential loss of production, Bethlehem Steel decided that implementation of a program to eliminate PCB’s was a prudent business decision. As a result, Bethlehem Steel has embarked on an aggressive multi-year program to virtually eliminate PCB’s from all of its operating facilities.